

07-06-19:01:40PM:FURUYA & CO.

发明(实用新型) ; 0036390419

2 / 4

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: Xingdi Zhou et al: Conf.: 7901

For: Basic metal nitrate, process for producing the same
and gas generating agent composition

Serial No.: 09/914 548

Group: 3641

Filed: August 30, 2001

Examiner: A. B. Felton

Attorney docket

No.: 0425-0851P

Commissioner for Patents
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.132

I, Jianzhou WU, hereby declare as follows:

I am one of the co-inventors of the invention described
and claimed in the instant patent application.I have carried out additional tests, procedures and
results of which are below described.

Test 1

9.8 g of guanidine nitrate (called GN) and 10.2 g of basic
copper nitrate (called BCN) were mixed with each other. The
mixture was passed two times through a sieve of 300 microns.
The sieved dried powder was molded into strands in the same
manner as shown in the declaration signed by Jianzhou WU on March
24, 2004.

07-06-19:01:40PM:FURUYA & CO.

片付地(株) (東京)

:0336390419

3/ 4

Page 2

Serial No.: 09/914 548

The strands were tested in view of the burning rate in the same manner as shown in the declaration signed by Jianzhou WU on March 24, 2004. Test results are shown in Table, below attached.

Test 2

9.8 g of guanidine nitrate (GN) and 10.2 g of basic copper nitrate (BCN) were mixed with each other. The mixture was passed two times through a sieve of 300 microns. The sieved dried powder was introduced in a plastic bag and 4 g of water was added. Having sealed the bag, the bag was crumpled by hands for 10 minutes to mix the powder and water well and then obtain granules having a diameter of about 5 mm. The granules were placed in a drying device and dried at 110°C for 12 hours. The dried lump was mildly ground in a mortar bowl into small pieces. They were molded into strands in the same way as Test 1. The strands were tested in view of the burning rate in the same manner as Test 1.

Test 3

Compositions shown in Table below attached were tested in the same way as Test 1 to determine burning rates thereof. CMCNa is sodium salt of carboxymethylcellulose. Test results are shown in Table.

Test 4

Compositions shown in Table below attached were tested in the same way as Test 2 to determine burning rates thereof. Test

07-06-18;01:40PM;FURUYA & CO.

外包(深工) (製造) ;0336390419

4/ 4

results are shown in Table.

Page 3

Serial No.: 09/914 548

Test No.	Composition	Composition Ratio	Molding Method	Burning Rate mm/sec(under the condition of 70kg/cm ²)
1	GN/BCN	49.11/50.89	molded in powder only	9.51
2	GN/BCN/Water	49.11/50.89/20	molded with added water	12.72
3	GN/BCN/CMCNa	42.31/52.69/5	molded in powder only	8.58
4	GN/BCN/CMCNa/Water	42.31/52.69/5/20	molded with added water	11.81

I hereby declare that all statements made herein of any own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United State Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: June 21st, 2007Jianzhou Wu

Jianzhou WU